

TABLE 61

Domestic full-time equivalent R&D employees and researchers, by work status, industry, and company size: 2019

(Thousands)

Industry and company size	NAICS code	FTE R&D employees ^a						FTE R&D scientists and engineers ^b									
		Total		Full-time R&D employees		Full-time employees working on R&D part time		Part-time employees working on R&D		Total		Full-time R&D employees		Full-time employees working on R&D part time		Part-time employees working on R&D	
All industries	21–23, 31–33, 42–81	1,677		1,384		277		17		1,147		989		150		8	
Manufacturing industries	31–33	878		749		121		9		611		544		63	i	4	
Food	311	19		16		3		*		11		10		1	i	*	i
Beverage and tobacco products	312	5		3		1		*		3		2		*		*	
Textile, apparel, and leather products	313–16	6		4		1		*		3		3		1		*	i
Wood products	321	2		1		1		*		1		1		*		*	
Paper	322	4		4		1		*		3		3		*		*	
Printing and related support activities	323	3	i	2	i	1	i	*	i	2	i	1	i	1	i	*	i
Petroleum and coal products	324	6		6		*		*		1		1		*		*	
Chemicals	325	181		172		8		1		124		119		4		1	
Basic chemicals	3251	11		10		1		*		6		6		*		*	
Resin, synthetic rubber, and artificial synthetic fibers and filaments	3252	5		4		*		*		4		3		*		*	
Pesticide, fertilizer, and other agricultural chemicals	3253	7		6		1	i	*		4		4		*	i	*	
Pharmaceuticals and medicines	3254	138		132		5		1		94		91		3		*	
Soap, cleaning compound, and toilet preparation	3256	11		10		1		*		8		8		*	i	*	
Paint, coating, adhesive, and other chemicals	3255, 3259	10		8		1		*		7		6		*		*	
Plastics and rubber products	326	19		14		5		*		9		8		2		*	
Nonmetallic mineral products	327	5	i	4	i	1		*	i	3	i	2	i	1	i	*	i
Primary metals	331	7		2		5		*		2		1		1		0	
Fabricated metal products	332	24		11		12		*		11		7		5		*	i
Machinery	333	82		57		24		2		57		41		15		1	
Agricultural implement	33311	11		10		1		*		7		7		*		*	
Semiconductor machinery	333242	12		10		2		*		9		8		1	i	*	i
Engine, turbine, and power transmission equipment	3336	7		6		1		*		5		4		*		*	i
Other machinery	other 333	53		31		21		1		35		21	i	13		1	
Computer and electronic products	334	252		227		23		2		202		186		16	i	1	i
Communications equipment	3342	40		38		1	i	*		30		29		1	i	*	i
Semiconductor and other electronic components	3344	88	i	79		9	i	*	i	76	i	70		6	i	*	i
Navigational, measuring, electromedical, and control instruments	3345	70		58		11		1		53	i	44		9	i	*	i
Electromedical, electrotherapeutic, and irradiation apparatus	334510, 334517	16	i	15	i	1	i	*	i	12	i	11	i	1	i	*	i

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		Total	Full-time R&D employees		Full-time employees working on R&D part time		Part-time employees working on R&D	Total	Full-time R&D employees		Full-time employees working on R&D part time		Part-time employees working on R&D	
Search, detection, navigation, guidance, aeronautical, and nautical system and instrument	334511	31	22		8		1		25	18		7		*
Other measuring and controlling device	other 3345	24	21		3		*		16	15		1		*
Other computer and electronic products	other 334	54	52		1	i	*		43	43		*	i	*
Electrical equipment, appliances, and components	335	22	18		4		*		15	13		2	i	*
Transportation equipment	336	164	139		23		2		117	105		11		1
Motor vehicles, bodies, trailers, and parts	3361–63	102	92		9		1		75	70		4		1
Aerospace products and parts	3364	50	39		10		1		35	30		5		1
Aircraft, aircraft engine, and aircraft parts	336411–13	46	37		8		1		33	28		4		1
Guided missile, space vehicle, and related parts	336414–15, 336419	4	i	2	i	1	*		3	i	1	i	1	*
Military armored vehicle, tank, and tank component	336992	1	*		1		0		*	*		*		0
Other transportation	other 336	11	i	8	i	3	i	*	6	4		1	i	*
Furniture and related products	337	3	2		1		*		2	1		*	i	*
Miscellaneous	339	72	65		6		1	i	44	41		3	i	*
Medical equipment and supplies	3391	57	54		3		1		36	35		2		*
Other miscellaneous manufacturing	3399	16	12		3		*	i	8	i	7	1	i	*
Nonmanufacturing industries	21–23, 42–81	799	635		156		8		536	444		87		4
Mining, quarrying, oil and gas extraction, and support activities	21	11	10		1		*		7	6		*		*
Utilities	22	1	*		*		*		*	*		*		*
Wholesale trade	42	10	5		4	i	*		5	3	i	1	i	*
Electronic shopping and electronic auctions	454111–12	38 - 64	13		25 - 52		*		17 - 58	4 - 14		8 - 44		*
Transportation and warehousing	48–49	15	i	12	i	3	i	*	11	i	10	i	1	i
Information	51	352	323		27	i	1		260	245		14	i	1
Publishing	511	107	102		4		1		85	83		2		*
Newspaper, periodical, book, and directory publishers	5111	1	*		*	i	*		*	*		*		0
Software publishers	5112	106	102		4		1		85	83		2		*
Telecommunications	517	19	7		11	i	*		8	i	3	5	i	*
Data processing, hosting, and related services	518	123	113		10		*		81	76		5		*
Other information	other 51	103	101		2		*		85	84		1		*
Finance and insurance	52	45	33	i	12		*	i	25	i	22	i	3	i

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		Total	Full-time R&D employees	Full-time employees working on R&D part time	Part-time employees working on R&D	Total	Full-time R&D employees	Full-time employees working on R&D part time	Part-time employees working on R&D
Real estate and rental and leasing	53	3	3	*	*	3	3	*	*
Lessors of nonfinancial intangible assets (except copyrighted works)	533	*	*	*	0	*	*	*	0
Other real estate and rental and leasing	other 53	3	3	*	*	3	3	*	*
Professional, scientific, and technical services	54	268	212	50	5	156	126	27	3
Architectural, engineering, and related services	5413	41	18	21	2	27	13	13	1
Computer systems design and related services	5415	91	78	12	2	67	61	6	1
Scientific research and development services	5417	95	89	4	2	41	39	2	1
Research and development in biotechnology	541711	30	29	*	*	11	11	*	*
Research and development in the physical, engineering, and life sciences (except biotechnology)	541712	56	52	3	1	28	26	1	1
Research and development in the social sciences and humanities	541720	9	8	*	*	2	2	*	*
Other professional, scientific, and technical services	other 54	41	27	13	*	19	13	6	*
Health care services	621-23	11	10	1	*	8	8	*	*
Other nonmanufacturing	23, 44-45 (excluding 454111-12), 55-56, 624, 71-72, 81	15 - 40	12	2 - 28	*	3 - 40	3 - 13	0 - 28	*
All companies (number of domestic employees)	-	1,677	1,384	277	17	1,147	989	150	8
Small companies									
10-19 ^c	-	32	25	7	1	23	20	3	*
20-49	-	70	52	16	2	44	35	8	1
Medium companies									
50-99	-	73	51	21	1	41	33	8	*
100-249	-	104	73	30	2	64	50	13	1
Large companies									
250-499	-	87	65	21	1	54	45	9	1
500-999	-	87	72	14	1	53	48	5	*
1,000-4,999	-	271	233	35	3	194	172	20	1
5,000-9,999	-	170	147	22	1	110	98	12	*
10,000-24,999	-	255	229	24	2	169	153	15	1
25,000 or more	-	527	438	86	3	393	336	56	2

* = amount < 500 employees; i = > 50% of the estimate is a combination of imputation and reweighting to account for nonresponse.

FTE = full-time equivalent; NAICS = 2012 North American Industry Classification System.

^a Includes scientists and engineers and their managers, as well as technicians, technologists, and support staff.

^b Includes scientists and engineers and their managers.

^c The Business Enterprise Research and Development Survey does not include companies with fewer than 10 domestic employees.

Note(s):

Detail may not add to total because of rounding. Industry classification is based on the dominant business code for domestic R&D performance, where available. For companies that did not report business codes, the classification used for sampling was assigned. Beginning in survey year 2018, statistics are representative of companies located in the United States that performed or funded \$50,000 or more of R&D. This change has affected the comparability of these estimates with estimates published for years prior to 2018. An estimate range may be displayed in place of a single estimate to avoid disclosing operations of individual companies.

Source(s):

National Center for Science and Engineering Statistics and Census Bureau, Business Enterprise Research and Development Survey, 2019.